2. The apparatus according to claim 1, wherein information regarding storage capacity for data storage on the disc is received, and on the basis of the received information, the scale factor n of recording density is determined.

3. The apparatus according to claim 2 comprising means for comparing the received information regarding storage capacity and a predetermined maximum storage capacity.

4. The apparatus according to claim 2, wherein if the predetermined maximum storage capacity is exceeded in a comparison of the received information regarding storage capacity and the maximum storage capacity, data indicating that recording is impossible is sent.

5. The apparatus according to claim 2, comprising means for comparing the received information regarding storage capacity and two predetermined maximum storage capacities.

6. The apparatus according to claim 2, wherein the received information regarding storage capacity is sent from an external computer.

7. The apparatus according to claim 1, wherein the n is greater than 1 and less than or equal to 1.2.

8. The apparatus according to claim 7, wherein if scale factor n that is determined on the basis of received information exceeds 1.2, a response is sent indicating that recording at that scale factor n is impossible.

9. A disc recording apparatus for recording data to a disc comprising a recording address calculated as $y = n(x-m) + m$ in the case where an offset address does not exist, where x is the absolute time address

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generated on the basis of the pregroove formed on the disc, n is the scale factor of recording density, and m is the recording start address, and the recording address z calculated as $z = y + p$ in the case where recording is performed with the offset address, where p is the offset address.

10.　The apparatus according to claim 9, wherein information regarding storage capacity of the disc for recording data is received, and the scale factor n of recording density is determined on the basis of the received information.

11.　The apparatus according to claim 10 comprising means for comparing the received information regarding storage capacity and a predetermined maximum recording capacity.

12.　The apparatus according to claim 11, wherein if the predetermined maximum storage capacity is exceeded in a comparison of the received information regarding storage capacity and the maximum storage capacity, data indicating that recording is impossible is sent.

13.　The apparatus according to claim 10, comprising means for comparing the received information regarding storage capacity and two predetermined maximum storage capacities.

14.　The apparatus according to claim 10, wherein the received information regarding storage capacity is sent from an external computer.

15.　A disc recorded with data comprising data recorded with y as a recording address calculated from $y = n(x-m) + m$, where x is an absolute time address generated on the basis of a pregroove formed on the disc, n is a scale factor of recording density, and m is a recording start address.

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16. The disc according to claim 15, wherein the n is greater than 1 and less than or equal to 1.2.

Please add the following new claims:

17. A method for recording data comprising calculating a recording address y using $y = n(x-m) + m$, where x is an absolute time address generated on the basis of a pregroove formed on the disc, n is a scale factor of recording density, and m is a recording start address.

18. The method according to claim 17 further comprising determining the scale factor n of recording density on the basis of information regarding storage capacity for data storage on the disc received.

19. The method according to claim 18 further comprising comparing the received information regarding storage capacity and a predetermined maximum storage capacity.

20. The method according to claim 18 further comprising sending data indicating that recording is impossible if the predetermined maximum storage capacity is exceeded in a comparison of the received information regarding storage capacity and the maximum storage capacity.

21 The method according to claim 17 further comprising comparing the received information regarding storage capacity and two predetermined maximum storage capacities.

22 The method according to claim 18 further comprising sending the received information regarding storage capacity from an external computer.

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